Number of Bicycles Stolen in Toronto on Different Premises from 2017 to 2023*

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This is my abstract.

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*Data and code are available at: https://github.com/moonsdust/sta302-tutorial2

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2.1 Plan

2.2 Simulate

We will first add the preamble documentation and setup our workspace. We use `R (programming language)` (R Core Team 2023), `tidyverse` (Wickham et al. 2019), `janitor` (Firke 2023), `ggplot2` (Wickham 2016), and `knitr` (Xie 2014).

```
#### Preamble ####
# Purpose: To create a graph of the number of bicycles stolen
# in Toronto on different premises from 2017 to 2023 by reading
# in data from Open Data Toronto.
# Author: Emily Su
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# Date: 16 January 2024
# Prerequisites: Know where the data is for bicycle thefts in Toronto.
```

```
#### Workspace setup ####
## (Installing packages (only needs to be done once per computer))
# install.packages("tidyverse")
# install.packages("janitor")
install.packages("ggplot2")
install.packages("knitr") # To make tables


library(tidyverse) # Contains data-related packages
library(janitor) # Cleans datasets
library(ggplot2) # To make graphs
library(knitr) # To make tables
```

2.3 Acquire

2.4 Explore

3 Results, Discussion, and Conclusion

References

Firke, Sam. 2023. *Janitor: Simple Tools for Examining and Cleaning Dirty Data*. https://github.com/sfirke/janitor.

R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

Wickham, Hadley. 2016. *Ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York. https://ggplot2.tidyverse.org.

Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.

Xie, Yihui. 2014. "Knitr: A Comprehensive Tool for Reproducible Research in R." In *Implementing Reproducible Computational Research*, edited by Victoria Stodden, Friedrich Leisch, and Roger D. Peng. Chapman; Hall/CRC. http://www.crcpress.com/product/isbn/9781466561595.